

IN THE DRAWINGS

Attached hereto are replacement sheets of drawings correcting the spelling of “Synchronizatron” in Figure 1 and “Inatial” and “Direcyly” in Figure 16. The replacement sheets are labeled at the bottom as “Replacement Sheet”, attached hereto as Exhibit A.

IN THE ABSTRACT

In the Abstract on page 40, line 2 delete “is shown”.

In the Abstract on page 40, line 9 delete “said” and insert “- - the”.

A corrected Abstract is attached hereto as Exhibit B.

TERMINAL DISCLAIMER

Attached hereto as Exhibit C is a “Terminal Disclaimer to Obviate a Double Patenting Rejection Over a ‘Prior’ Patent” is attached. Therefore, the references of U.S. Patent Nos. 6,429,650 and 6,396,261 have been eliminated as references. Applicant points out that the priority of this application relates back to the same Provisional Application No. 60/124,763 filed on March 17, 1999 as the two patents that are the subject matter of the Terminal Disclaimer.

REMARKS

Applicant’s attorney, Ted D. Lee wishes to thank examiner Kenneth J. Whittington for the courtesies extended in a telephone interview on February 4, 2005.

Claims 1 – 22 are pending in the application.

Claims 1 – 22 were rejected under U.S. Patnet Nos. 6,429,650 and 6,396,261 that are the subject of the Terminal Disclaimer herein, which patents have now been eliminated as references.

Claims 1, 6, 13 and 17 were also rejected under Kuhr.

A. Kuhr is based on different basic physical principle.

Referring the McGraw Hill Dictionary of Scientific and Technical Terms, 6th Edition, “Barkhausen Effect” is referred to as follows:

The succession of abrupt changes in magnetization occurring when the magnetization force acting on a piece of iron or other magnetic material is varied.

These abrupt changes and the noise they create were named after Barkhausen, the individual who first reported the phenomena. This phenomena is related to the local (microscopic) transient magnetization process in the material.

While the Barkhausen effect is referred to in many other places in Kuhr, it’s specifically mentions several times in the “Abstract”. All of the independent claims 1, 16 and 17 in Kuhr specifically claim the Barkhausen effect. The Kuhr reference is directed towards the use of the Barkhausen effect.

On the other hand, the present invention uses magnetostrictive techniques in determining anomalies or defects in pipes or tubes using a ferromagnetic strip. Referring to the same McGraw Hill Dictionary of Scientific and Technical Terms “magnetostriction” is defined as the following:

“The dependence of the state of strain (dimensions) of a ferromagnetic sample on the direction and extent of its magnetization”

While no definition was included of magnetostrictive effect, the inventor, Hegeon Kwun defines “magnetostrictive effect” as the following:

“A small change in the overall (macroscopic) dimensions (primarily length) of a ferromagnetic material that occurs when the material is magnetized”.

As is indicated by the inventors (and verified by the above definitions) Barkhausen effect and magnetostrictive effect are totally independent from each other. Barkhausen noise is on a microscopic level for local transient magnetization process, but magnetostrictive effect is on the macroscopic level for dimensional changes in the ferromagnetic material that occurs during magnetization.

B. Inventors eminent authorities in this area.

The inventors, particularly Hegeon Kwun, are eminent authorities in this particular area. Mr. Kwun is the inventor on numerous patents involving non-destructive testing using

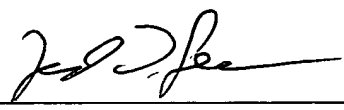
magnetostrictive techniques. The inventor's employer, Southwest Research Institute, is probably the leading organization in the world for developing non-destructive testing techniques. Hegeon Kwun is one of the leading scientists in this particular field. These leading scientists have discovered an improvement in prior methods of detecting defects in pipes or tubes by using a thin thermomagnetic strip made from an iron cobalt alloy. See Claim 1, line 16. This invention which claims priority back to March 17, 1999, is directed towards that improvement in using magnetostrictive techniques and detecting defects in a pipe or cylinder.

SUMMARY

For the reasons given herein above, Applicants believe they have complied with all of the formal requirements of the examiner. Based upon the filing of the Terminal Disclaimer, the two primary references of the '650 patent and the '262 patent have been eliminated. For the reasons given herein above the Kuhr patent is directed towards a different physical phenomena, and should not be applied as a basis for a rejection. Therefore, Applicants respectfully request that with this amendment a Notice of Allowance be issued. If a telephone conference with the examiner would be helpful to iron out any remaining problems, it is respectfully requested.

Respectfully submitted,

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